

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1, 2, 4-6, 8, 9, 11-16, 18-20, and 22 in accordance with the following:

Claim 1 (Currently Amended): A recording method, comprising:
~~separately recording to an optical recording medium:~~
recording temporary defect information to an optical recording medium, the temporary defect information having ~~with an accumulated~~ size equal to a multiple ($N=1,2, \dots$) of a predetermined size (K) ~~among entire temporary defect information;~~ and
separately recording remaining subsequent temporary defect information on the optical recording medium, the subsequent temporary defect information having a size less than the predetermined size (K) and excluding the temporary defect information with having the accumulated size equal to $K \times N$, ~~among the entire temporary defect information.~~

Claim 2 (Currently Amended): The recording method of claim 1, further comprising:
recording size information of the temporary defect information with having the accumulated size equal to $K \times N$, information indicating a location of the temporary defect information with having the accumulated size equal to $K \times N$, and information indicating a location of the ~~remaining~~ subsequent temporary defect information; excluding the temporary defect information with having the accumulated size equal to $K \times N$, ~~to the~~ on the optical recording medium.

Claim 3 (Original): The recording method of claim 1, wherein the optical recording medium is a write once medium.

Claim 4 (Currently Amended): A recording method, comprising:
continuously recording temporary defect information with having an accumulated size

equal to a multiple ($N = 1, 2, \dots$) of a predetermined size (K) among ~~entire temporary defect information to~~ on at least one portion of an optical recording medium; and

accumulating and recording ~~remainingsubsequent~~ temporary defect information having a size less than the predetermined size (K); and excluding the temporary defect information with having the size equal to $K \times N$; ~~among the entire temporary defect information to the~~ on the optical recording medium ~~during each operation~~, until an accumulated size of the ~~accumulated~~subsequent temporary defect information reaches K .

Claim 5 (Currently Amended): The recording method of claim 4, further comprising:

recording size information of the temporary defect information withhaving the accumulated size ($K \times N$) equal to the multiple ($N = 1, 2, \dots$) of the predetermined size (K), information indicating a location of the temporary defect information withhaving the accumulated size equal to the multiple of the predetermined size, and information indicating a location of the ~~accumulated~~subsequent temporary defect information, ~~to the~~on the optical recording medium.

Claim 6 (Currently Amended): The recording method of claim 4, further comprising:

if a ~~the~~ accumulated size of the ~~remainingsubsequent~~ temporary defect information reaches the predetermined size K ~~during one of the operations~~, continuously-contiguously recording the temporary defect information withhaving the size equal to $K \times N$ and the ~~remainingsubsequent~~ temporary defect information; excluding the temporary defect information withhaving the accumulated size equal to $K \times N$, to at least one portion of the optical recording medium.

Claim 7 (Currently Amended): The recording method of claim 6, further comprising:

recording size information ($K \times N + K$) of the ~~continuously-contiguously~~ recorded temporary defect information₁ and information indicating a location of the contiguously~~continuously~~ recorded temporary defect information₁ ~~to the~~on the optical recording medium.

Claim 8 (Currently Amended): A recording apparatus, comprising:

a controller ~~to controlling-control~~ separately recording temporary defect information with having an accumulated size equal to a multiple ($N = 1, 2, \dots$) of a predetermined size (K)₁ among

~~entire temporary defect information and remainingsubsequent~~ temporary defect information having a size less than the predetermined size (K), and excluding the temporary defect information ~~with having the accumulated size equal to $K \times N$, among the entire temporary defect information to an on an~~ optical recording medium.

Claim 9 (Currently Amended): The recording apparatus of claim 8, wherein the controller further controls recording size information of the temporary defect information ~~with having the accumulated size equal to $K \times N$, information indicating a location of the temporary defect information with having the accumulated size equal to $K \times N$, and information indicating a location of the remainingsubsequent temporary defect information, excluding the temporary defect information with having the accumulated size equal to $K \times N$, to the on the~~ optical recording medium.

Claim 10 (Original): The recording apparatus of claim 8, wherein the optical recording medium is a write once medium.

Claim 11 (Currently Amended): A recording apparatus, comprising:
a first controller which controls ~~continuously~~ recording temporary defect information ~~with having an accumulated size equal to a multiple ($N = 1, 2, \dots$) of a predetermined size (K) among entire temporary defect information to at least one portion of an optical recording medium; and~~
a second controller which controls accumulatively recording ~~remainingsubsequent~~ temporary defect information having a size less than the predetermined size (K), and excluding the temporary defect information ~~with having the accumulated size equal to $K \times N$, among the entire temporary information to the on the optical recording medium during each operation, until an accumulated size of the accumulated-subsequent temporary defect information reaches K.~~

Claim 12 (Currently Amended): The recording apparatus of claim 11, further comprising:

a third controller which controls recording the temporary defect information ~~with having the accumulated size equal to $K \times N$, information indicating a location of the temporary defect information with having the accumulated size equal to $K \times N$, and information indicating a location of the remainingsubsequent temporary defect information, to the on the optical recording medium.~~

Claim 13 (Currently Amended): The recording apparatus of claim 11, further

comprising:

a fourth controller which controls ~~contiguously~~continuously recording the temporary defect information ~~with~~having the accumulated size equal to $K \times N$ and the accumulated subsequent temporary defect information ~~with~~having the size equal to K to at least one portion of the optical recording medium if a size of the ~~remaining~~accumulated subsequent temporary defect information reaches K ~~during one of the operations~~.

Claim 14 (Currently Amended): The recording apparatus of claim 13, further comprising:

a fifth controller which controls recording information ~~with~~having a size $(K \times N + K)$ including the ~~contiguously~~continuously recorded temporary defect information₁ and information indicating a location of the ~~contiguously~~continuously recorded temporary defect information₁ ~~to~~on the optical recording medium.

Claim 15 (Currently Amended): An optical recording medium, comprising:

a first area, in which temporary defect information ~~with~~having an accumulated size equal to a multiple ($N = 1, 2, \dots$) of a predetermined size K ~~among entire temporary defect information~~ is recorded; and

a second area, in which the temporary defect information ~~with~~having the accumulated size equal to $K \times N$, and ~~remainingsubsequent~~ temporary defect information₂ having a size less than the predetermined size K and excluding the temporary defect information ~~with~~having the accumulated size equal to $K \times N$, ~~among the entire temporary defect information~~ are separately recorded.

Claim 16 (Currently Amended): The optical recording medium of claim 15, further comprising:

a third area, in which size information of the temporary defect information ~~with~~having the accumulated size equal to $K \times N$ of the predetermined size, information indicating a location of the temporary defect information ~~with~~having the accumulated size equal to $K \times N$, and information indicating a location of the ~~accumulated-subsequent~~ temporary defect information are recorded.

Claim 17 (Original): The optical recording medium of claim 15, wherein the optical recording medium is a write once medium.

Claim 18 (Currently Amended): An optical recording medium, comprising:
a first area, in which temporary defect information ~~with~~ having an accumulated size equal to a multiple ($N = 1, 2, \dots$) of a predetermined size K ~~among entire temporary defect information~~ is ~~contiguously~~ continuously recorded; and
a second area, in which ~~remainingsubsequent~~ temporary defect information having a size less than the predetermined size (K) and, excluding the temporary defect information ~~with~~ having the accumulated size equal to $K \times N$, ~~among the entire temporary defect information~~ is accumulatively recorded ~~during each operation until an accumulated~~ size of the accumulated subsequent temporary defect information reaches the predetermined size K .

Claim 19 (Currently Amended): The optical recording medium of claim 18, further comprising:
a third area, in which size information of the temporary defect information ~~with~~ having the accumulated size equal to $K \times N$, information indicating a location of the temporary defect information ~~with~~ having the accumulated size equal to $K \times N$, and information indicating a location of the ~~accumulated-subsequent~~ temporary defect information ~~is~~ are recorded.

Claim 20 (Currently Amended): The optical recording medium of claim 18, further comprising:
a fourth area, in which if a ~~the accumulated~~ size of the ~~remainingsubsequent~~ temporary defect information reaches the predetermined size K ~~in the operation~~, the temporary defect information ~~with~~ having the accumulated size equal to $K \times N$ and the ~~remainingsubsequent~~ temporary defect information are ~~contiguously~~ continuously recorded.

Claim 21 (Currently Amended): The optical recording medium of claim 20, further comprising:
a fifth area, in which size information of the ~~contiguously~~ continuously recorded temporary defect information and information indicating a location of the ~~contiguously~~ continuously recorded temporary defect information are recorded.

Claim 22 (Currently Amended): A computer-readable medium having embodied thereon a computer program that, when executed by a recording apparatus, performs a recording method, comprising:
separately storing temporary defect information ~~with~~ having an accumulated size equal to a multiple ($N = 1, 2, \dots$) of a predetermined size (K) ~~among entire temporary defect information~~,

and ~~accumulated-subsequent~~ temporary defect information having a size less than the predetermined size (K); and ~~excluding the temporary defect information with~~ having the accumulated size equal to $K \times N$, among the entire temporary defect information;

storing size information of the temporary defect information ~~with~~ having the accumulated size equal to $K \times N$, information indicating a location of the temporary defect information ~~with~~ having the accumulated size equal to $K \times N$, and information indicating a location of the ~~remainingsubsequent~~ temporary defect information; and

using the stored temporary defect information ~~with~~ having a-the accumulated size equal to a multiple ($N = 1, 2, \dots$) of a predetermined size (K), the stored size information of the temporary defect information ~~with~~ having the accumulated size equal to $K \times N$, the stored information indicating a location of the temporary defect information ~~with~~ having the accumulated size equal to $K \times N$, and the stored information indicating a location of the ~~remainingsubsequent~~ temporary defect information, during a recording operation to manage defects.

Claim 23 (Withdrawn): A recording medium defect management method, comprising:

accumulating temporary defect information during a verify after write operation;
recording the temporary defect information in a first area on the recording medium when the accumulated temporary defect information reaches a predetermined size; and
recording management information in a second area on the recording medium corresponding to the predetermined size and a location of the accumulated temporary defect information.

Claim 24 (Withdrawn): The method of claim 23, further comprising:
accumulating excess temporary defect information when the accumulated temporary defect information exceeds the predetermined size;
updating the recorded temporary defect information in the first area by recording the accumulated excess temporary defect information adjacent to the accumulated temporary defect information; and
updating the management information in the second area on the recording medium to include management information corresponding to a location of the accumulated excess temporary defect information.

Claim 25 (Withdrawn): The method of claim 24, wherein the updating the management information comprises storing a step #i pointer corresponding to the location of the

accumulated excess temporary defect information.

Claim 26 (Withdrawn): The method of claim 24, further comprising:
recording a total temporary defect information when the accumulated excess temporary defect information reaches the predetermined size corresponding to the accumulated temporary defect information and the accumulated excess temporary defect information; and
updating the management information in the second area on the recording medium corresponding to a location and size of the total temporary defect information.

Claim 27 (Withdrawn): The method of claim 26, wherein the size of the recorded total temporary defect information is equal to a multiple of the predetermined size.

Claim 28 (Withdrawn): The method of claim 26, further comprising:
finalizing the temporary defect information, wherein only a significant temporary defect information is read; and
recording the read significant temporary defect information in a predetermined defect management area of the recording medium.

Claim 29 (Withdrawn): The method of claim 26, wherein the updating the management information comprises storing a keep #i size and a keep #i pointer corresponding to the location and the size of the total temporary defect information.

Claim 30 (Withdrawn): A computer-readable medium having embodied thereon a computer program executing a recording method, comprising:
accumulating temporary defect information during a verify after write operation;
recording the temporary defect information in a first area on the recording medium when the accumulated temporary defect information reaches a predetermined size; and
recording management information in a second area on the recording medium corresponding to the predetermined size and a location of the accumulated temporary defect information.